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ORIGINAL

PRIMARY AND SECONDARY SCHOOL PHYSICAL EDUCATION TEACHERS' BELIEFS

PERCEPCIÓN DE LAS COMPETENCIAS PROFESIONALES DEL DOCENTE DE EDUCACIÓN FÍSICA EN PRIMARIA Y SECUNDARIA

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ABSTRACT

The study has analyzed physical education teachers' self-perception of their professional competences in primary and secondary school, as one of the aspects that determines physical education identity as a school subject. The main purpose of the analysis is to review the status of physical education from this perspective. 119 primary and secondary school teachers from Castilla-La Mancha took part in the study, which applied part of the Scale of Perception of Teachers' Efficiency, designed and validated by the research group GIEEAFyD-UAM (Hernández et al. 2010), and, more specifically, those questions referred to teachers' perception of their own educational competences; The results revealed that primary school teachers regard themselves as more competent than secondary school teachers in classroom management/organization and in teaching methodology. Differences are significant in participants' perception of their command of the content and there are no differences in leadership qualities and neither in the relation to other education agents.

KEY WORDS: Physical Education, teachers' beliefs, primary, secondary.

RESUMEN

El estudio ha tenido el propósito de analizar el conocimiento de la percepción de las competencias profesionales que tiene el profesor de educación física en primaria y secundaria, como uno de los aspectos que determinan la identidad de la educación física como materia escolar, para dar respuesta al análisis del estado de la educación física desde esta perspectiva. Participaron 119 docentes de Castilla-La Mancha de primaria y secundaria, a los que se les aplicó parte de la "Escala de Percepción de la eficacia de los docentes"; concretamente las preguntas referidas a la percepción sobre las competencias docentes que tienen los profesores; diseñado y validado por el grupo de investigación (GIEEAFyD-UAM), liderado por Hernández et al., (2010). Los resultados muestran que los profesores de primaria se perciben más competentes que los profesores de secundaria en la gestión/organización de la clase y en el conocimiento didáctico de la enseñanza; las diferencias son significativas en la percepción del dominio del contenido de enseñanza y no se hallan diferencias en la capacidad de liderazgo y de relación con otros agentes.

PALABRAS CLAVE: Educación Física, creencias del profesorado, competencias, primaria, secundaria.

1. INTRODUCTION

The interest of this study is about teacher's beliefs of autoefficiency when they develop their educational work. Aspects like the management of the class, the styles of education, the types of knowledge, personal characteristics of the teacher, the control of the discipline in the classroom and the climate of classroom, the attitude of the teachers, diversity of the student body and didactic tools, the type of knowledge curricular, the decisions, etc., they are elements that the educational efficiency carries from diverse perspectives, studied and arranged of different way for authors as Armor et al. (1976), Berman et al. (1977), Medley (1979), Ashton y Webb (1982), De Gibson y Dembo (1984), Shulman (1987), Woolfolk y Hoy (1990), Coladarci (1992), Woolfolk (1993), Ghaith y Yaghi (1997), Calderhead (1996), Fang (1996), Tschannen-Moran, Woolfolk Hoy y Hoy (1998), Prieto (2002), Martin y Hodges-Kulinna (2004), O'Sullivan (2005), Chacon (2006), Skaalvik y Skaalvik (2007), Perandones y Castejon (2007), Klassen et al. (2009), Apaslan (2009), Díaz (2009), Hernández et al., (2010). In this scene and on line with the study raised by Shulman (1987) and Hernández et to. (2010), we are agree with four dimensions: the knowledge of the content of education, the didactic knowledge of the content, the management/organization of the class and the capacity of leadership.

By the way, about of physical education in primary and secondary teachers' beliefs of the knowledge of the professional competences, as one of the aspects that determine the identity of the physical education in the school. We study what happen to teachers of Castilla-La Mancha of Toledo (Spain), to extend the work realized by the Group of Investigation in Education and Evaluation of the Physical Activity and Sport in the Autonoma University of Madrid (GIEEAFyD-UAM), Led by Hernández et al., (2010). We want to give response to the analysis of the condition of the physical education from this area; without forgetting that there exist other many factors that determine the identity of the physical education subject.

We have focused our attention in adopting the decision to arrange the educational teachers' competences in four dimensions: the knowledge of the content of education, the didactic knowledge of the content, the management/organization of the class and the capacity teachers' leadership (Shulman, 1987; Hernández et to., 2010), and to base the study on the bibliographical following review:

About the *knowledge of the content of education* by the teachers, the Educational Administration establish the curriculum of the different levels, stages, cycles, degrees and modalities of the educational system, which must include the common education. Therefore, the curriculum, and in our case physical education, has two functions basically: a) to make explicit the intentions of the Educational System where there would begin aims, basic competences and contents; b) it's a guide to the educational practice where you can find criteria of evaluation of each aim, and it can be served to choose a good method of education. Without forgetting that the basic contents of the education are based on a four lines in the process of education learning:

psychology, pedagogy, sociology and epistemology of the physical education (Soler, 1994). To emphasize that the curriculum of the physical education in Spain is prescriptive and obligatory to follow by the teachers, guaranteeing the same common formation to all the students. In addition the curriculum guides the educational practice, and is flexible and opened in all that the teachers can adapt to the context to give response to the educational specific reality of every community, province, people, college, classroom, pupil. Also the curriculum contents indicate skills, knowledge and attitudes in relation with the degree of development of the student, according to Department of Education and Science of Spain, Autonomy Community and the Educational Project of the School (Sanchez Bañuelos, 1986; Pierón, 1988; Coll, 1992; Díaz Lucea, 1994; Sáenz-Lopez, 1997; Contreras, 1998; Sanchez Bañuelos et al., 2002; Del Valle and García, 2007).

The *didactic knowledge of the content* centres his attention: a) in the design of the programming carries the didactic units, methodological balance between competences, aims, contents, methodology and evaluation and the expression of all his components (Del Valle and García, 2007); b) to establish different types of tasks or activities identifying a didactic aim, to have aptitude to modify the tasks depending on the events that could take place during their application, the motivation towards the development of the tasks without to pay attention to the diversity in the class (Sanchez Bañuelos, 1986; Pierón, 1988; Sáenz-Lopez, 1997; Contreras 1998; Del Valle and García, 2007; Blázquez and Sebastiani, 2009); c) have the students good learnings using the methodological, material resources (Moston, 1978; Sanchez Bañuelos, 1986; Pierón, 1988; Delgado Noguera, 1991; Sáenz-Lopez, 1997; Siedentop, 1998; Contreras 1998; Del Valle and García, 2007; Blázquez and Sebastiani, 2009); d) designs situations that allow to evaluate the process of education attending to the evaluation of the pupil, of the teacher and of the process (Stenhouse, 1984; Stufflebeam and Shinkfield, 1987; Sanchez Bañuelos, 1986, 2002; Blázquez, 1990, 1993, 2009; Gimeno, 1993; Sáenz-Lopez, 1997; Contreras, 1998; Del Valle and and García, 2007; Zabala and Arnau, 2007).

Respect to *the management/organization of the class*, Sanchez Bañuelos (1986), Pieron (1988), Delgado Noguera (1991), Del Villar (1993), Calderhead (1996), Fang, (1996), Sáenz-Lopez (1997), Contreras (1998), Seners (2001), O'Sullivan, (2005), Bores (2005), De Miguel (2006), Del Valle and García (2007), propose a few variables to be in mind in the organization of the session for example: personality of the teacher; domain of the contents and aptitudes related to the speciality; image of the teacher; degree of credibility; to prepare interesting activities; to construct competition, to create a positive climate in class; Clear rules of behavior; good organization of the activity; attention to the participation of the pupils in the session; good sections in the activities and material; a very good communication in the class; progression, good control and organization in the session; the teacher must be capable the pupils respect the procedure. The control gives place to a good organization, participation, motivation and learning.

Finally *the capacity of leadership and the relation with other agents involved in the education*: the parents, the colleges. The teacher must be able to exercise

influence in the class, guide the pupils to basic competences depending of the programming. It is supposed that the intervention of the teacher has an impact in the performance and satisfaction of the pupils, in his physical well-being and psychological health. The leadership is one of the fundamental competences of the interaction that the teacher realizes with the pupils and with other members of the educational community, corroborated by Tedesco (1998), (2000), García and Ruiz (2001) Crushed, Katzenmeyer and Moller (2001), Day, Sammons, and Hopkins (2009), Hernández et al., (2010).

2. AIMS

First we are interested in understanding how are teachers' believes competences of physical education in Castilla-La Mancha. This is to analyze across their perception the educational action; how they know and to be able to do. How are their believes in autoefficiency of physical education; being important to analyze up what point they are perceived dominating or not about knowledge of the content, the didactic knowledge, the management/organization of the class and the capacity of leadership and relation with other agents involved in the process of education.

Second we will try to classify the different levels of comprehension of the autoefficiency depending on the sex of the teacher. So we will investigate in the difficulties and the specific advances in their believes about educational competences.

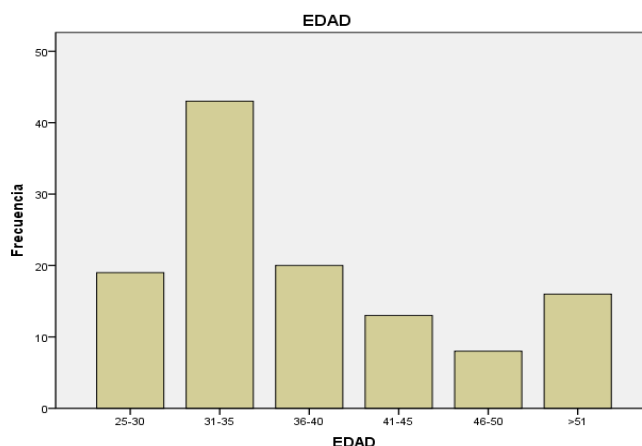
Third we want to analyze in the physical education teacher the different levels of comprehension of the autoefficiency depending on the educational stage: primary or secondary. We will investigate in the difficulties and the specific advances in their believes about educational competences distinguishing both educational stages.

3. METHODOLOGY

The description of the methodology in this study is following Thomas and Nelson (2007). This study is not experimental and descriptive associative design. This type of work is characterized to describe the variables without considering causal hypotheses or another type.

3.1. Sample

The sample of study has 119 teachers of Primary and Secondary. The sample has qualified for groups of age of the following way (see graph n ° 1):



Graph n° 1: Age of the participants in the study

Of the total of the sample 63 teachers give class in primary representing 52,9 % and 56 teachers belong to secondary representing 47,1%. Respect to the sex 70 % -of 119 teachers-, belongs to the masculine sex representing only 30% women.

In the table n° 1, we represent the years of experience of the sample. In the table we can see that more than 50% of the participants have between 5 and 15 years of experiences as teacher of Physical Education.

| Years of experience | Frecuency | % |
|---------------------|-----------|------|
| < 5 years | 24 | 20,2 |
| 5 – 10 years | 40 | 33,6 |
| 11 – 15 years | 26 | 21,8 |
| 16 – 20 years | 12 | 10,1 |
| > 20 years | 17 | 14,3 |
| Total | 119 | 100 |

Table n° 1: frequency years of experience of the sample.

The total sample belongs to public centers of the community of Castilla-La Mancha of Toledo (Spain). The reason to choose the teachers' sample of primary and secondary it is based in analyzing if exist different levels teachers' beliefs of autoefficiency.

3.2. Procedure

The procedure used to gather the information was carried out during April-June 2011, first a web- questt was elaborated for the authors with the articles that form the instrument selected to obtain the information, based partly from the study of Hernández et al., (2010); concretely recounted to the teachers' believes for the *knowledge of the content*, the *didactic knowledge*, the *management/ organization of the class* and the *capacity of leadership of the teacher and the relation with other agents*. The above mentioned web-questt

come to all the teachers of physical education of Castilla-La Mancha across their personal e-mails. By e-mail we explained to them which was the motive of the contact, which was the purpose and the aims of the investigation, the instructions with the procedure to fill the web-questt and the pertinent information of the department of education of Castilla-La Mancha. The questionnaire was voluntary and anonymous and was carried out in May and June, 2011. All the teachers had to give his personal assent to form a part of the study, filling the voluntary acceptance before being able to send the completed questionnaire. All the information of the questionnaires was stored in the virtual space of google, created expressly for the investigation and they could export in excel 2007 for the statistical analysis.

In agreement with the ethical criteria inherent in this type of investigation, we have the corresponding permissions of the department of education and to the teachers, which participation was voluntary, guaranteeing at all time the anonymity. Also in this study the teachers took part freely and there has been kept the confidentiality of their identity.

3.3. Tools

We use the questionnaire elaborated by the group of investigation GIEEAFyD-UAM, to measure the professional competences. First the teacher indicated their age, educational stage and years of educational experience. In addition, it contains diverse questions and scales that allow to obtain information about the valuation that the own teacher realizes of his professional competences: *knowledge of the content, didactic knowledge, the management/organization of the class* and the *capacity of leadership and of relation with other agents*. The aim of the design of the questionnaire is directed to obtain information about the perception that the teachers of physical education have of his own competences. For the psychometric characteristics of the instrument we must say that we are speaking about a tool with a high reliability (Alpha de Combrach > 0,83), with a suitable checking because there was applied in a pilot study to 119 participants of the same characteristics of age and sex (Alpha de Combrach > 0,84).

The questionnaire is answered by means of a Likert's scale with 5 levels (1= nothing agreement; 2 = little; 3 = sufficient; 4 = enough; 5 = very agreement), and four different dimensions and 42 questions, for example:

1. *Knowledge of the content* (example: I can competence in the development of the class with different contents).
2. *Didactic knowledge of the content* (example: I am capable to attend to the different characteristics and formative needs of the student at the moment of design the tasks of the class).
3. *Management /organization of the class* (example: I am capable of organizing the pupils in the minor possible time to realize tasks of learning).

4. *Capacity of leadership and of relation with other agents* (example: I am capable of exposing with clarity to the parents the formative aims of the physical education).

3.4. Analysis and statistics criteria

The information has been treated by the statistical program SPSS version 17.0, has been obtained descriptive basic in order to observe possible significant differences depending on variables of sex and the educational stage of the teachers, according to the aims of study. We analyzed *Students t*, *Pearson's correlation* and the *anova*. In the *anova* there was carried out an analysis of the variance of a factor, taking four dimensions of the questionnaire as dependent variables: *Knowledge of the content*, *Didactic knowledge of the content*, *Management/organization of the class* and *Capacity of leadership and of relation with other agents*. The factor was the sex: men (n = 83) and Women (n = 36). In addition, we proceeded to the analysis of the variance of a factor, taking four dimensions of the questionnaire as dependent variables, (1) *Knowledge of the content*, (2) *didactic Knowledge of the content*, (3) *Management / organization of the class* and (4) *Capacity of leadership and of relation with other agents*; and like factor the educational stage: Primary (n=63) and Secondary (n=56).

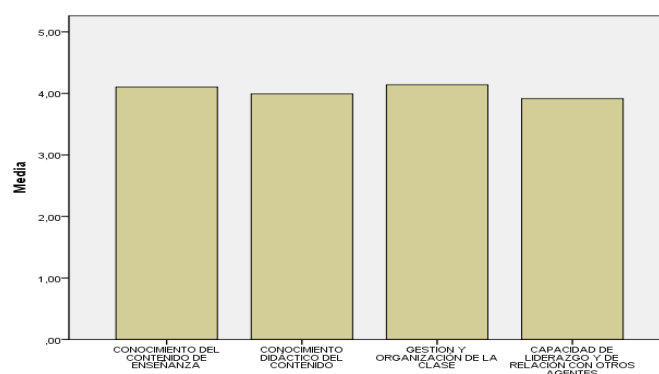
4. RESULTS

Realized the descriptive opportune analysis, there was carried out the analysis of the differences and similarities that exist in the perception of the educational competences: *knowledge of the content*, *didactic knowledge*, *management/organization of the class* and *capacity of leadership and relation with other agents*, for the total of the sample, by means *Students t* for a sample, with a confidence interval of 95 %. One found that four values aspects were significant as we emphasizes in the table n^o 2:

| | Value of the statistic = 0 | | | | | |
|---|----------------------------|----------|------------------|------------------------|---|----------|
| | t | gl | Sig. (bilateral) | Diferences of the mean | 95% confidence interval to the difference | |
| | Inferior | Superior | Inferior | Superior | Inferior | Superior |
| Knowledge of the content | 85,742 | 118 | ,000 | 4,10504 | 4,0102 | 4,1999 |
| Didactic knowledge | 82,047 | 118 | ,000 | 3,99230 | 3,8959 | 4,0887 |
| Management/organization of the class | 85,891 | 118 | ,000 | 4,14146 | 4,0460 | 4,2369 |
| Capacity of leadership and relation with other agents | 70,329 | 118 | ,000 | 3,91597 | 3,8057 | 4,0262 |

Table 2. *Student t* for the sample.

If we represent the mean of the four dimensions (competences), in the graph n^o 2, we can see the bigger the predominance of the *management/organization of the class*, then the *knowledge of the content*, the *knowledge of the didactic content* and the less the *capacity of leadership and relation by other agents*.



Graph nº 2. Mean of competences.

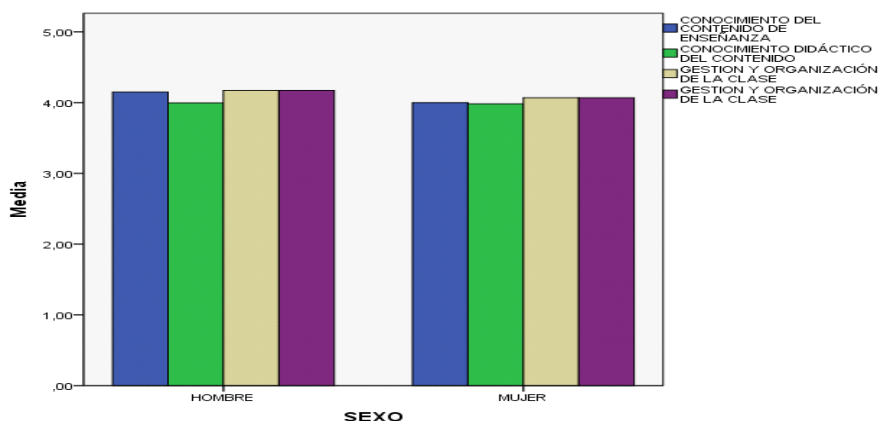
Pearson's correlation shows the *knowledge of the content* turns significantly to the *didactic knowledge of the content* (, 812 **), and in minor measure with the *management/organization of the class* (, 682 **), and with *capacity of leadership and relation with other agents* (, 644 **). The *didactic knowledge* correlates very significantly with the *management/organization of the class* (, 805 **), and with the *capacity of leadership and relation with other agents* (, 772 **); and significant correlation with the *knowledge of the content*. Finally, the *management/organization of the class* correlates in minor measure with the *knowledge of the content* (, 682 **), and with the *capacity of leadership and relation with other agents* (, 613 **).

Realized the Students t for independent samples depending on the sex, taking four competences with a confidence interval of 95 %, There are not significant differences depending on the sex. Let's see the table nº 3:

| | | Prueba de Levene para la igualdad de varianzas | | Students T para la igualdad de medias | | | | | | |
|---|-------------------------------------|--|----------|---------------------------------------|----------|------------------|----------------------|-----------------------------|---|----------|
| | | F | Sig. | t | gl | Sig. (bilateral) | Diferencia de medias | Error típ. de la diferencia | 95% Intervalo de confianza para la diferencia | |
| | | Inferior | Superior | Inferior | Superior | Inferior | Superior | Inferior | Superior | Inferior |
| knowledge of the content | Se han asumido varianzas iguales | 5,085 | ,026 | 1,452 | 117 | ,149 | ,15060 | ,10374 | -,05485 | ,35606 |
| | No se han asumido varianzas iguales | | | 1,322 | 54,711 | ,192 | ,15060 | ,11389 | -,07768 | ,37888 |
| Management/organization of the class | Se han asumido varianzas iguales | ,075 | ,784 | ,983 | 117 | ,327 | ,10325 | ,10498 | -,10467 | ,31116 |
| | No se han asumido varianzas iguales | | | ,956 | 62,478 | ,343 | ,10325 | ,10802 | -,11266 | ,31915 |
| Capacity of leadership and relation with other agents | Se han asumido varianzas iguales | ,005 | ,942 | 1,102 | 117 | ,273 | ,13341 | ,12111 | -,10644 | ,37325 |
| | No se han asumido varianzas iguales | | | 1,086 | 64,490 | ,282 | ,13341 | ,12284 | -,11195 | ,37877 |
| Didactic knowledge | Se han asumido varianzas iguales | ,150 | ,699 | ,115 | 117 | ,909 | ,01219 | ,10637 | -,19848 | ,22286 |
| | No se han asumido varianzas iguales | | | ,113 | 64,755 | ,910 | ,01219 | ,10770 | -,20292 | ,22729 |

Table 3. Student t for independent samples over sex.

In the following graph reflects what has happened concerning the factor sex. There aren't differences between men and women. We can observe both teachers (man and women) choose 4 of a maximum of 5 in the Likert's scale. Men are perceived more competent in emphasizing the *knowledge of the content*, the *management/organization of the class* and the *capacity of leadership and relation with other agents* over the *didactic knowledge of the content*; women are perceived more competent in *management/organization of the class* and the *capacity of leadership and relation with other agents*; both the *knowledge of the content* and the *didactic knowledge of the content* there aren't differences for women. Let's see the graph n° 3:



Graph nº 3. Professional Competences over sex.

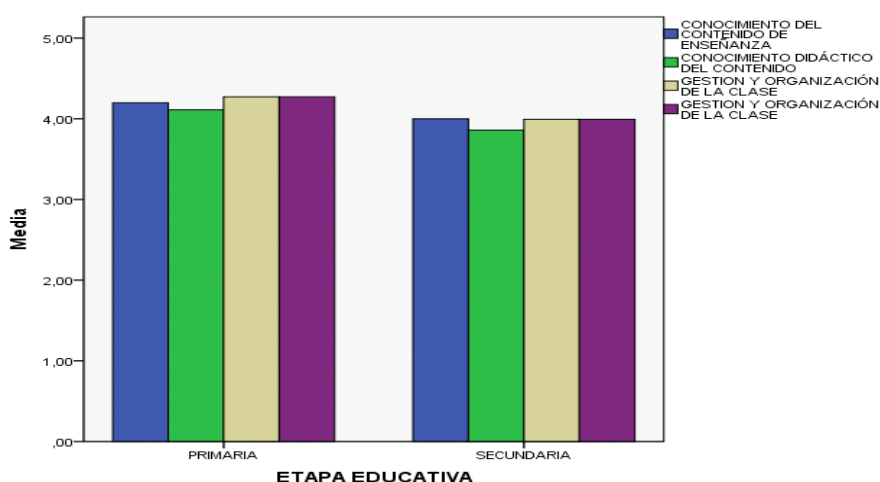
The analysis of variance for four dimensions of the questionnaire over sex, corroborates not significant differences in the anova of a factor, taking the competences as dependent variables and the sex like a factor.

Realized a students t for independent samples, depending on the educational stage, taking four competences with a confidence interval of 95 %, we observe there are strong significant differences between the primary and secondary stage over *management/organization of the class* and *didactic knowledge of the content*; and significant differences in the *knowledge of the content*, and not differences in the *capacity of leadership and relation with other agents*. Let's see the following table nº 4:

| | | Prueba de Levene para la igualdad de varianzas | | Students T para la igualdad de medias | | | | | | |
|---|-------------------------------------|--|----------|---------------------------------------|----------|------------------|----------------------|-----------------------------|---|----------|
| | | F | Sig. | t | gl | Sig. (bilateral) | Diferencia de medias | Error típ. de la diferencia | 95% Intervalo de confianza para la diferencia | |
| | | Inferior | Superior | Inferior | Superior | Inferior | Superior | Inferior | Superior | Inferior |
| knowledge of the content | Se han asumido varianzas iguales | ,005 | ,944 | 2,098 | 117 | ,038 | ,19841 | ,09457 | ,01113 | ,38570 |
| | No se han asumido varianzas iguales | | | 2,089 | 112,771 | ,039 | ,19841 | ,09499 | ,01022 | ,38661 |
| Management/organization of the class | Se han asumido varianzas iguales | ,525 | ,470 | 2,977 | 117 | ,004 | ,27844 | ,09354 | ,09319 | ,46368 |
| | No se han asumido varianzas iguales | | | 2,946 | 107,811 | ,004 | ,27844 | ,09451 | ,09109 | ,46579 |
| Capacity of leadership and relation with other agents | Se han asumido varianzas iguales | ,042 | ,838 | 1,729 | 117 | ,087 | ,19122 | ,11063 | -,02787 | ,41031 |
| | No se han asumido varianzas iguales | | | 1,728 | 115,353 | ,087 | ,19122 | ,11063 | -,02791 | ,41035 |
| Didactic knowledge | Se han asumido varianzas iguales | ,518 | ,473 | 2,640 | 117 | ,009 | ,25107 | ,09511 | ,06271 | ,43943 |
| | No se han asumido varianzas iguales | | | 2,620 | 110,516 | ,010 | ,25107 | ,09581 | ,06120 | ,44095 |

Table 4. Student t for independent samples over primary and secondary stage.

If we realize the graph over primary and secondary stage, we observe in general that in primary the teachers perceive over 4 in the Likert's scale, in order of priority in *management/organization of the class* and *capacity of leadership and relation with other agents*; followed by the *knowledge of the content* and *didactic knowledge of the content*. On the other hand, the secondary teacher are perceived almost coming to 4 points in the Likert's scale, below primary teachers and in order of priority we can see the *knowledge of the content*, followed *management/organization of the class* and *capacity of leadership and relation with other agents*; and finally the *didactic knowledge of the content* (let's see graph nº 4):



Graph nº 4. Professional competences in primary and secondary stage.

In the analysis of variance for four dimensions of the questionnaire over primary and secondary stage, we find significant differences in primary teachers over secondary teachers in *knowledge of the content*, *didactic knowledge of the content* and *management/organization of the class*. Let's see table nº 5:

| | | Sum Square | gl | Mean Square | F | Sig. |
|---|--------------|------------|-----|-------------|-------|-------------|
| knowledge of the content | Inter-grupos | 1,167 | 1 | 1,167 | 4,402 | ,038 |
| | Intra-grupos | 31,020 | 117 | ,265 | | |
| | Total | 32,187 | 118 | | | |
| Didactic knowledge | Inter-grupos | 1,869 | 1 | 1,869 | 6,969 | ,009 |
| | Intra-grupos | 31,378 | 117 | ,268 | | |
| | Total | 33,246 | 118 | | | |
| Management/organization of the class | Inter-grupos | 2,298 | 1 | 2,298 | 8,861 | ,004 |
| | Intra-grupos | 30,348 | 117 | ,259 | | |
| | Total | 32,647 | 118 | | | |
| Capacity of leadership and relation with other agents | Inter-grupos | 1,084 | 1 | 1,084 | 2,988 | ,087 |
| | Intra-grupos | 42,451 | 117 | ,363 | | |
| | Total | 43,535 | 118 | | | |

Table nº 5. Analysis of variance for four dimensions over primary and secondary stage.

5. DISCUSSION

The statistical analysis Students t verifies we can find significant differences between four competences (Medley, 1979; Shulman, 1987; Today and Woolfolk, 1993; Martin and Hodges-Kulinna, 2004; Blackish, 2005; Apaslan, 2009; Hernández et al., 2010; also this results indicate that it's necessary to concrete the type of curricular knowledge that a teacher must dominate in the performance of his professional labor, like the *knowledge of the content* and the *didactic knowledge of the content*, agree with Shulman (1987).

The graph nº 2 reveals of each teachers' believes competences a high punctuation to 4 in the Likert's scale 0-5, we find that it is the perception of the *management/organization of the class* the most valued competence, then the *knowledge of the content*, the *knowledge of the didactic content* and the

capacity of leadership and relation with other agents. These results show that the teachers are more worried by the control and the organization of the session and by the domain of the contents of education than for the *knowledge of the didactic content* and the improvement of his *capacity of leadership*. This is not surprising if we think that the teachers' believe are worried by a control and organization session more than own learn corroborate by authors that they expose that the control of the session is a priority aspect that it unrolls to develop of the effective organization, the participation of the students, the motivation and the significant learning (Del Villar, 1993; Saénz-Lopez, 1997; Senners, 2001; Bores, 2005). Another topic would be to wonder is why the *capacity of leadership and the relation with other agents* is perceived in the last place when a leader generates a development of the learning in the students, in all the areas of their personality (Day, Sammons, and Hopkins, 2009). Agree with Pastor (2001), it can be for a deficient teachers' formation not orientated on the new paradigms by means of a process of critical review and a coherent update by the contributions of the modern sciences. Finally to find in the penultimate the *didactic content* competence can be to think which is the character of use of the methodological resources to lead the learning. The design of the programming, the activities and tasks, the evaluation, etc., can be aspect that the teachers give more attention for the degree of uncertainty that sometimes he carries. Probably it is easier to dominate the *content of education* or the *management/organization* than the *didactic knowledge of the content*.

Pearson's correlation between four competences shows the perception of the didactic knowledge of the content is the competence on which they turn other competences. Teachers must carry out a programming, a design of activities, verify the learning of the pupils, evaluate the process of learning; oriented by a good knowledge of the content, a good management/organization of the class, with aptitude to be a leader and the other agents who take place in the educational process. So it is very important a permanent and constant training in to use a good methodology of education and the design of the processes of learning over the society changes.

Over the sex there is not significant differences, both men and women show it's important the *knowledge of the content*, the *management/organization of the class*, the *capacity of leadership and relation with other agents* and in last place, the *didactic knowledge*. These results indicate us that the perception of the *capacity of leadership* or the perception of the *didactic knowledge of the content* occupy the last places developed probably by the feeling of a minor control in their decisions (Sánchez Bañuelos, 1986; Pierón, 1988; Coll, 1992; Díaz Lucea, 1994; Soler, 1994; Calderhead, 1996; Fang, 1996; Sáez-López, 1997; Contreras, 1998; Sanchez Bañuelos et al., 2002; O'Sullivan, 2005; Del Valle y García, 2007; Blázquez y Sebastiani, 2009; Hernández et al., 2010).

In the analysis of the differences between educational stages: primary and secondary, we have verified with Students t that exist strong significant differences between teachers' believes in primary stage opposite secondary stage in the *management/organization of the class* and in the *didactic knowledge of the education*; the differences are significant in the *perception of the domain of the content* of education and differences are not situated in the

capacity of leadership and of relation with other agents. This lets think about the differences types of management in primary and secondary stage. Probably in secondary stage will be more complex to lead the process of education for what teachers' believes are perceived less competent than the primary teachers. Another point can be concerning is the major motivation in primary children than secondary stage (Sáenz-Lopez, 1997). Nevertheless why the secondary teachers' believe are less competent in the domain of the *didactic content* than primary teachers? Also if the initial formation to be a secondary teacher in the University is more specific in physical education than the primary initial formation teachers in physical education. Probably be due to a less character of use in the education that don't helps them to solve problems of the daily life (Pastor, 2001), or due to the fact that the *management/organization of the class* makes to itself more complex in secondary that in primary stage; for what this reverberates in a low perception in the domain of the *didactic content*. If we analyze now the perception of the *knowledge of education*, the primary teachers have a belief major than secondary teachers paradoxical fact if we analyzed that in the curriculum of Primary the content are less concrete than in secondary curriculum. This reflection leads us to thinking that it had been necessary to go deeply more into this aspect, since the questions that are done in the questionnaire have a general character and can confused the results. Questions of the type: " I feel capable of using diverse contents to develop the same capacities in the students ... " or " I Can affront with competence the development of the class with different contents", have a very general character. Finally, we don't find significant differences in the perception of the *capacity of leadership and relation with other agents*. This results can be think as the primary and secondary teachers perceived more competent in the *management/organization of the class* and in the *domain of the content* and in the *capacity of leadership and relation by other agents* as for the domain of the *didactic knowledge of the content*. Aspect re-draw in the analysis of variance because there are strong significant differences between primary and secondary in the perception of the *didactic knowledge of the content*, the *management/organization of the class* and significant in the *knowledge of the content*. Primary and secondary teachers' believes both competent in the *capacity of leadership and relation by other agents*, necessary in the development of the educational labor.

6. CONCLUSIONS

Analyzing the results we come to the following conclusions: the teachers of physical education of Castilla-La Mancha participants in this study are perceived very competent in each of the studied competences following this way *management/organization of the class*; *knowledge of the content of education*; *didactic knowledge of the content* and *capacity of leadership and of relation with other agents*.

For the model who establishes taking the perception of four competences, we thought that the *didactic knowledge* is the competence that it correlates strong significantly with the rest of competences, being for order the *knowledge of the content* of education, the *management/organization of the class* and the *capacity of leadership and relation with other agents*. This let us think about the

importance of a good initial and permanent formation in the *didactic knowledge of the content* because this competence is a key over the rest of competences (Moston, 1978; Stenhouse, 1984; Stufflebeam y Shinkfield, 1987; Sánchez Bañuelos, 1986, 2002; Pierón, 1988; Blázquez, 1990, 1993, 2009; Delgado Noguera, 1991; Gimeno, 1993; Sáenz-López, 1997; Siedentop, 1998; Contreras, 1998; Del Valle y García, 2007; Zabala y Arnau, 2007; Blázquez y Sebastiani, 2009; Hernández et al., 2010). Without forgetting that if we cannot a good didactic knowledge of the content we can fall down in the disability of methodological change in our discipline, losing the train of the social change (Pastor, 2001).

Over the sex we cannot found significant differences for the total of the sample may be due to an imbalance of the sample (83 men and 36 women), have taken part in the study -aspect followed in favoring the voluntary character of the investigation-, or because in the teachers' profession differences do not exist because there aren't differences in the functions they develop in the work. Both, men and women value very positively his educational competences about 4 point to 5 in the Likert's scale, they are more competent in their perception of the *Knowledge of the content, management/organization of the class, capacity of leadership and relation with other agents* and finally, the *didactic knowledge of the content*. This information let us think that the *didactic knowledge of the content* is one of the competences more necessary to pay attention in the initial education of the teachers' formation or in the permanent formation, since they are perceived less competent. This let us thinking about three aspects: a) It is necessary to rethink on what type of education it is offering and on what aspects are necessary improve in the university; b) it is opportune permanent formation above these topics; c) the teachers must take many decisions in a complex environment, it is not easy to be perceived competent.

Primary and secondary teachers are perceived very competent in the development of his educational labor, point on 4 in the Likert's scale. Nevertheless we conclude that there are significant differences between primary and secondary stages in favour of primary in: *management/organization of the class, the didactic knowledge of the content, knowledge of the content*. It is interesting how in primary the teachers feel more capable of managing the control and organization of the class and order that he carries to a participation, motivation and learning, corroborated by authors as Sanchez Bañuelos (1986), Pieron (1988), Woolfolk y Hoy (1990), Delgado Noguera (1991), Del Villar (1993), Sáenz-López (1997), Contreras (1998), Senners (2001), Bores (2005), Del Valle y García (2007), Klassen, et al., (2009); in the way that a good domain of the discipline in class, reverberates in a major autoefficiency. These differences can be because in primary there is simple management/organization of the class, easy motivation than in secondary stage. Respect to the *didactic knowledge of the content*, we have seen that the primary teachers perceived more competence in programming, realized better activities of learning, they controlled the learning of the pupils and the evaluation of the process better than the secondary teachers. This can be due of a good instruction in their initial formation or maybe it will be easier to put into practice the didactic process plus a opened and general curriculum compared to specific knowledge in secondary stage; or finally to think that it would be

suitable to make more specific the questions used in the applied instrument, not to fall down in mistakes when we interpreted the results because this can be also in the *knowledge of the content of education*. Nevertheless there aren't significant differences in the *perception of the capacity of leadership and of relation with other agents* between primary and secondary teachers' believes what leads us to affirming that both teachers are perceived very competent on their level of competence and domain of the possibilities of utilization of educational or particular resources, with the intention of establishing cordial and fluid relations with other members of the educational community (Hernández et to., 2010).

In general we conclude the teachers' believes of physical education of primary and secondary stage of Castilla-La Mancha, have a high degree of competence in the four dimensions studied when they develop their educational labor, agree with the results found in the study of Hernández et al., (2010).

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